

**PREGNANCY OUTCOME IN A UNICORNUATE UTERUS: A CASE REPORT****\*Dr. Parto Ghasemidehkordi**

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**ABSTRACT**

Defects of uterine shape and development during intrauterine life causes congenital uterine anomalies. 2.4 to 13% of Müllerian anomalies are due to unicornuate uterus. It is often associated with increased risk of intrauterine growth restriction (IUGR), breech presentation, preterm premature rupture of membranes, cesarean section, placenta previa, placental abruption, and preterm birth. Here is a case of a 27-year-old primigravida with 39 weeks and 1 day of gestation presented with lower abdominal pain. An emergency lower segment cesarean (LSCS) section was successfully performed due to fetal distress. While performing the cesarean section it was observed that the uterus was unicornuate. A live male baby of 3kg birth weight was extracted. Even though the unicornuate uterus is responsible for inimical maternal and fetal outcomes in pregnant women, a successful pregnancy is possible. 2-dimensional and 3- dimensional ultrasound scanning can be done prior to delivery for diagnosis and further management of these anomalies.

**KEYWORDS:** Pregnancy outcome, congenital müllerian malformations, uterine anomalies, pregnancy unicornuate uterus, urogenital abnormalities.

**INTRODUCTION**

An abnormal formation, reabsorption, or fusion of Mullerian ducts during fetal life can result in Congenital uterine anomalies. The incidence of Mullerian duct anomalies (MDA) is 0.5% to 5%.<sup>[1]</sup> It can cause complications like infertility, repeated first-trimester spontaneous abortions, intrauterine growth retardation, preterm labor, placental abruption.<sup>[2]</sup> It has been proposed that intrauterine growth restriction, abortion in the first trimester, and stillbirths, may be caused due to abnormal blood flow to the uterus. Second-trimester abortions and preterm deliveries are believed to be because of cervical incompetence and decreased muscle mass in the unicornuate uterus.<sup>[3]</sup>

According to the American Society of Reproductive Medicine classification system for müllerian anomalies, unicornuate uterus or unicornis unicollis is a type II classification which is further divided into communicating, non-communicating, no horn, and no cavity.<sup>[4]</sup> Unicornuate uterus with or without rudimentary horn happens due to the fusion of the mullerian ducts or abnormal or failed development of one of the paired duct. It is present in 0.1% of the population.<sup>[5]</sup> Women with unicornuate uterus exhibit poor reproductive outcomes with a live birth rate of only 29.2%, prematurity rate of 44%, an ectopic pregnancy rate of 4%, and intrauterine fetal demise is seen in 10.5%.<sup>[6]</sup> Renal abnormalities are more commonly associated with a unicornuate uterus than with other Müllerian duct

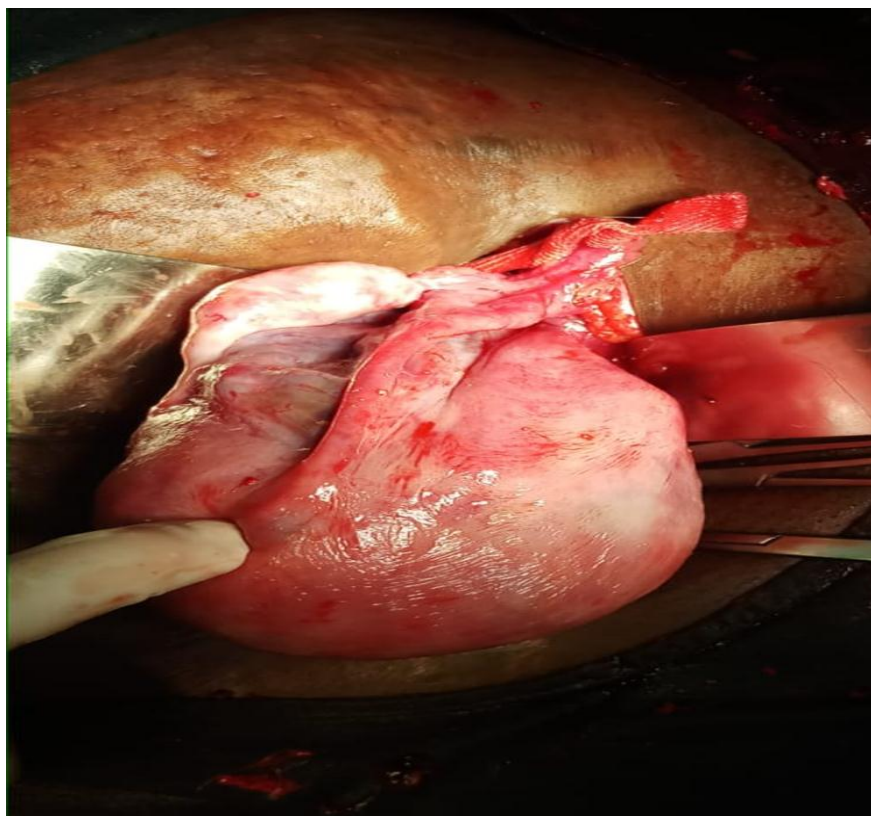
anomalies and are seen in 40% of the cases.<sup>[7]</sup> We present the case report of a successful pregnancy in a south Indian woman with unicornuate uterus.

**CASE REPORT**

A 27-year-old primigravida with a gestation of 39 weeks and 1 day was presented to the labor room with complaints of lower abdominal pain since 2 days. She was diagnosed with right ectopic kidney at 12th week of her gestation and also had a history of pedal edema localized on ankle and face. On examination, her vitals were within normal limits. Examination of her abdomen was suggestive of term pregnancy and a fetal heart rate of 140bpm. Her Abdomino Pelvic Ultrasonogram (USG) showed an ectopic right kidney located in the right iliac fossa. Obstetric USG shows a Single live intrauterine gestation of 39 weeks 1 day with cephalic presentation.

Emergency Lower Segment Caesarean Section was performed on the next day due to fetal distress. While performing the cesarean section it was observed that there was an absence of right round ligament. The uterus was found to be unicornuate (Fig. 1). A live male baby of 3kg birth weight was extracted and Baby Cried Immediately After Birth. Placenta was posterior and expelled completely. APGAR score was observed as 7 in one minute and 9 in five minutes. Atonic Post-Partum Haemorrhage (PPH) was observed and managed with Hayman suture. She had an uneventful post-op recovery

and was discharged from the hospital on postoperative day 8.



**Fig 1: Intra OP picture of Unicornuate uterus.**

## DISCUSSION

Patients having unicornuate uterus with or without rudimentary horn are at elevated risk of obstetric and gynecologic problems and often tend to present with symptoms like chronic pelvic pain and dysmenorrhea at menarche or later in their life.<sup>[8]</sup> According to a study conducted by Wang et al on 225 women with congenital uterine malformations, 26 cases of unicornuate uterus with rudimentary horn were present, of which 15% (4) had become pregnant and 4% (1) had ipsilateral oviduct ectopic pregnancy.<sup>[9]</sup> Fox et al, found out that the risk of adverse reproductive outcome was increased in patients with uterine unicorns and risk of preterm delivery in such cases are very high.<sup>[10]</sup> In a study conducted by Heinonen, unicornuate uterus was commonly found on the right side (62%) and kidney abnormalities were present in 38% of the patients.<sup>[11]</sup> Even though the obstetrical outcome was usually poor, a few case studies have reported successful pregnancies. A triplet pregnancy was reported in a patient with a unicornuate uterus with a cavitary communicating rudimentary horn by Gerris et al<sup>[12]</sup> Caserta et al. had reported a 39 weeks' pregnancy with successful outcomes after the cesarean section.<sup>[3]</sup>

## CONCLUSION

Unicornuate uterus with or without a rudimentary horn is at an increased risk of gynecologic problems like dysmenorrhea, pelvic pain, and obstetric complications

like preterm delivery, malpresentation, and increased rate of cesarean section. The early diagnosis of this condition during pregnancy is a major challenge for obstetricians. 2 dimensional and 3-dimensional ultrasound scanning can be routinely performed during pregnancy for early detection of the unicornuate uterus and renal abnormalities accompanying it. MRI examination as a complement to ultrasound should be used to make the correct diagnosis. In the case of unicornuate uterus with a cavitary communicating or non-communicating rudimentary horn, surgical removal of the rudimentary horn is indicated to avoid potential complications.

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## Conflict of interest

The authors declare no conflict of interest.

## REFERENCES

1. Chan YY, Jayaprakasan K, Tan A, Thornton JG, Coomarasamy A, Raine-Fenning NJ. Reproductive outcomes in women with congenital uterine

- anomalies: a systematic review. *Ultrasound Obstet Gynecol*, 2011; 38(4): 371–82.
2. Hua M, Odibo AO, Longman RE, Macones GA, Roehl KA, Cahill AG. Congenital uterine anomalies and adverse pregnancy outcomes. *Am J Obstet Gynecol*, 2011; 205(6): 558. e1–e5.
  3. Caserta D, Mallozzi M, Meldolesi C, Bianchi P, Moscarini M. Pregnancy in a unicornuate uterus: a case report. *J Med Case Reports*, 2014; 8: 130.
  4. The American Fertility Society classifications of adnexal adhesions, distal tubal occlusion, tubal occlusion secondary to tubal ligation, tubal pregnancies, müllerian anomalies and intrauterine adhesions. *Fertil Steril*, 1988 Jun; 49(6): 944-55.
  5. Akar ME, Bayar D, Yildiz S, Ozel M, Yilmaz Z. Reproductive outcome of women with unicornuate uterus. *Aust N Z Obstet Gynaecol*, 2005; 45(2): 148–50.
  6. Reichman D, Laufer MR, Robinson BK. Pregnancy outcomes in unicornuate uteri: A review. *Fertil Steril*, 2009; 91(5): 1886-94.
  7. Li S, Qayyam A, Coakley FV, Hricak H. Association of renal agenesis and Müllerian duct anomalies. *J Comput Assist Tomogr*, 2000; 6: 829–34.
  8. Khati NJ, Frazier AA, Brindle KA. The unicornuate uterus and its variants. Clinical presentation, imaging findings, and associated complications. *J Ultrasound Med.*, 2012; 31: 319-31.
  9. Wang SJ, Oli M, Jinag L, Wang JL, Wei LH. Clinical analysis of 225 women with congenital uterine malformation. *Zhonghua Fu Chan Ke Za Zhi.*, 2008; 43(7): 493-6.
  10. Fox S, Ashley S, Erica M, Rachel S, Daniel H, Andrei R. Type of congenital uterine anomaly and adverse pregnancy outcomes. *The Journal of Maternal-Fetal and Neonatal Medicine*, 2014; 9: 949-53.
  11. Heinonen PK. Unicornuate uterus and rudimentary horn. *Fertil Steril*, 1997; 68(2): 224-30.
  12. Gerris J, Eulaers E, Joostens M, Jacquemyn Y, Loquet P, Verdonk P, et al. Successful triplet pregnancy in a patient with a unicornuate uterus with a cavitary communicating rudimentary horn. *Hum Reprod*, 1993; 8(2): 338-41.